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A

CATALOGUE OF BOOKS,

MANUSCRIPTS,

SPECIMENS OF CLOCKS, WATCHES

AND

WATCHWORK, PAINTINGS, PRINTS, &c.,

IN THE

LIBRARY AND MUSEUM

OF THE

WORSHIPFUL COMPANY OF CLOCKMAKERS,

DEPOSITED IN THE

FREE LIBRARY OF THE CORPORATION OF THE CITY OF LONDON.

LONDON:
PRINTED BY E. J. FRANCIS & CO., TOOK'S COURT AND WINE OFFICE COURT, E.C.

1875.

1875
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1875

PREFACE.

THERE are, probably, few subjects connected with Science upon which so little has been published in this country (except occasionally in periodical publications) as those relating to the Theory and Practice of the Art of Clock and Watch Making. The paucity of works upon this subject is the more surprising, when its importance, as connected with the maritime greatness and commercial prosperity of the British Dominions, is duly considered. The safety of its Navy (the source of all its greatness), and also the security of its Commercial Marine, which is the nursery to the former, entirely depend, according to the modern practice of navigation, upon the accurate measurement of time at sea. The productions of our neighbours the French relating to the Science of Horology are much more numerous, and several of them are extremely curious and interesting.

Many individuals, from the difficulty of acquiring a general knowledge of the various inventions and improvements which have been made in this branch of Science, have lost much valuable time, and incurred a great expense, in bringing forward inventions which they supposed to be new, and in many cases in procuring Patents, of which printed descriptions were already in existence. Could these persons have had access to any public collection of works upon

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Horology, it is more than probable that much time would have been saved and inconvenience avoided. With a full conviction of the importance of the subject, the Court of Assistants of the Company of Clockmakers of the City of London first contemplated the formation of a Library; and the Committee under whose immediate direction it was formed, being of opinion that a sufficient number of Volumes had been collected to be useful to the Practical Mechanic and to the Amateur, recommended to the Court that a Catalogue of them should be prepared, which recommendation was promptly acquiesced in, and the same was printed in 1830.

Since that period a great number of Volumes have been added to the Library; and on April 8th, 1872, in consequence of a letter addressed by Mr. Deputy S. E. Atkins, Clerk of the Company, to Mr. John Grant, the senior member of the Court and only surviving representative of the original Library Committee, suggesting a plan for transferring the Company's Library and Museum to the New Library of the Corporation of the City of London, which letter being laid before the Master, Wardens and Court of Assistants of the Company, they, in accordance with the suggestions contained therein, coincided in the desirability of placing their Library and Museum where they would be more useful and accessible to the general public, and—

"Resolved,

"That the Clerk be requested to communicate with

the Corporation of the City of London, so as to ascertain upon what conditions they would undertake the charge of the Company's Library and Museum, maintaining the same in proper order, and finding suitable accommodation for them in their New Library, subject to removal by either party on proper notice, and to report the same to this Court."

Upon the subject being submitted to the Library Committee of the Corporation, they recommended the Court of Common Council to accept the care of the Library and Museum, on terms to be mutually agreed upon, and submitted the draft of a deed for carrying the arrangement into effect July 18th, 1872, which deed being approved by the Master, Wardens and Court of Assistants, was sealed February 27th, 1873.

The Court of Assistants, recognizing the necessity of reprinting the Catalogue, on the 6th of April, 1874, passed the following order:—

"Resolved,

"That a new Catalogue of the Books in the Company's Library be compiled by Mr. W. H. Overall; the said Catalogue to contain the MSS. recently arranged by him, and also the collection of Clocks, Watches and Watch Movements, and all other articles belonging to the Company, recently deposited in the Guildhall Library and Museum of the City of London."

1875.

A LIST OF THE MASTER, WARDENS, AND COURT OF ASSISTANTS

OF THE WORSHIPFUL

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CATALOGUE OF BOOKS.

ABBOTT (FRANCIS) A Treatise on the management of Public Clocks, particularly Church Clocks; with hints for their improvement, and means for regulating them. Second edition. 8vo. *London, n. d.*

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ARTS, Manufactures, and Commerce, Transactions of the Society instituted at London for the encouragement of, from 1783 to 1831, with analytical Index to June, 1807. 47 vols. 8vo. *London*, 1783-1831

ARTS. The Journal of Science, Literature, and the Arts, from 1817 to 1830, with an Index to vols. 1 to 20. 30 vols. 8vo. *London*, 1817-1830

ARTS AND SCIENCES. Register of the, with all the important and interesting Inventions, Improvements, and Discoveries. 4 vols. 8vo. *London*, 1824-1827

ARTS. The Register of, and Journal of Patent Inventions, edited by L. Herbert. 7 vols. 8vo. *London*, 1828-32

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* He dwelt on the south side of St. Paul's Church, over against Paul's Chain; he died in the King's Bench Prison in 1677, and was buried at St. George the Martyr's, Southwark.

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HORLOGERIE Mémoire sur l'Horlogerie, contenant diverses remarques sur les ouvrages et les pretensions de M. R. 4to. *Paris*, 1750

HORLOGERIE L'Art de l'Horlogerie ; ou, Manuel complet de l'horloger, et de l'amateur, d'après Berthoud et les travaux de Wuillamy, premier Horloger du Roi d'Angleterre Georges IV. 12mo. *Paris*, 1827

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9. Order of the Lord Mayor directing that Thomas Loomes should only keep two Apprentices instead of five, 25th February, 1656.
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11. Petition of the Freemen to the same effect as the foregoing.
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27. Letter requesting the attendance of Aldermen at the Court of Aldermen on the 23rd June, 1749, when the Report of the Committee as to a grant of a Livery to the Company will be considered, signed by the Master Wardens.
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30. Case and Opinion of Mr. Lloyd upon the same subject, April 23rd, 1750.
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51. & 52. Letters with reference to the foregoing.

APPRENTICES.

1. Opinion of Mr. Duncan Dee, one of the City Counsel and afterwards Common Serjeant as to the binding Apprentices, Feb. 22nd, 1699.
2. Copy of the Case and Opinion of Mr. Sam: Dodd and Con: Phipps, Jan. 31st, 1700.
3. Case as to the seizing of Watches belonging to Mr. Billic, 1686-1687.
4. The Petition of John Hutchinson as to improvements in the making of Watch-wheels.
5. Copy of the Petition of the Company of Clockmakers to the House of Commons against the above.
6. Reasons against.
7. Reasons in favour.
8. Further Reasons of the Company against.
9. Further Reasons in favour.
10. Report of the Company's proceedings in order to oppose the passing of a Bill in Parliament in favour of Mr. Hutchinson's Patent.
11. Instructions as to attending the Parliamentary Committee.
12. Names of the Committee.
13. Report of the Proceedings of the Company in opposing Clay's Patent.
14. Order of the Lord Mayor, 7th May, 1707, upon Mr. Abraham Fromantel on his refusal to serve the office of Steward.

THE PAYMENT of QUARTERAGE.

1. A Copy of the Oath of every Freeman of the Company of Clockmakers.

2. & 3. Cases and Opinion of Counsel as to the payment of Quarterage (Samuel Dodd and C. Phipps), 1700.

4. Attorney's Bill for business done in obtaining a Livery for the Company, 1766.

5. Attorney's Bill for obtaining Counsel's Opinion as to the payment of Quarterage, 1795.

6. Attorney's Bill upon application to Mr. Arnold to take up his Livery, 1796.

7. Abstract of the Charter of Incorporation and Bye Laws of the Company.

8. Declaration against John Allen for carrying on the trade of a Watchmaker, not being free of the Company, with the Opinion of William Lambe thereon, 7th May, 1787.

9. Declaration against John Allen to the same effect.

10. Judgement of the Mayor's Court against John Allen, 15th June, 1787.

11. Notes and Opinions of William Lambe, special pleader, in the suit against John Allen, 7th May, 1787.

12. Letter from James Freshfield as to the non-payment of his Quarterage. Order of the Court of Assistants to proceed against him for the amount, 10th October, 1796.

13. Another letter upon the same subject, 19th September, 1796.

14. to 16. Notice of Proceedings against, in the Court of Common Pleas, 19th November, 1796.

17. Declaration against James Freshfield in the Common Pleas for payment of Quarterage, 37th George III. (The case sets out the history of the Company, their charter, privileges, franchises, and jurisdiction.)

18. Instructions in the Case, February 6th, 1797.

19. Another copy of the Case.

20. Petition from Mr. Joseph Bramley, Citizen, and Founder to the Court of Aldermen, against being compelled to take up his Freedom in the Clockmakers' Company, 31st January, 1797.
21. Order of the Court of the Company, held at Founders' Hall, Lothbury, 2nd July, 1705, to summon Freemen for non-payment of Quarterage.
22. Report of the Committee appointed as to Quarterage.
23. Report of the Renter Warden, B. L. Vulliamy, as to members who have not paid their Quarterage, 30th November, 1818.

PAPERS, PETITIONS to PARLIAMENT, &c., relating to the IMPORTATION and EXPORTATION of WATCHES, CLOCKS, &c.

1. Copy of a Petition to the House of Lords against the running of prohibited goods, 12th March, 1717.
2. Petition to Parliament, as drawn by Mr. Wilkes, to the same effect.
3. Memorial of the Trade to the Company respecting the Importation of Foreign Watches, &c., signed by fifty-four members of the Trade, 15th September, 1780.
4. Order of the Treasury to the Commissioners of H.M. Customs as to the seizure of Watches, August 7th 1789.
5. On the distress of the Members of the Watch Trade.
6. Memorandum as to the exportation of Watches.
7. Copy of a Petition of the Goldsmiths' Company as to the proposed Act of Parliament for preventing the running of prohibited goods, Watches, &c.
8. Objections of the Watchmakers against some of the clauses of the proposed Act.
9. On the Fineness of the Gold and Silver used in the Manufacture of Watch-cases, 19th December, 1718.

10. Copy of a Clause to be inserted in the proposed Act of Parliament as to the exportation of Watch-cases, &c.
11. Minutes of the Company as to the seizure of goods by the Customs, with the price of certain Watches.
12. Draft of an Act of Parliament against enticing Artificers to emigrate.
13. Expenses for obtaining original order of King James.
14. Advertisement of the Company against engraving the names of good makers upon bad work, 18th December, 1777.
15. Letter from the Secretary of Customs as to the seizure of Watches, &c., 13th July, 1790.
16. Heads of the Clauses in the Bill proposed by the Committee of the Clock and Watch Trade, signed by G. Atkins, Clerk to the Company.
17. Letter from the Secretary of the Customs as to the seizure of Watches, 18th June, 1790.
18. Letter from Thomas Judson to the Company as to the necessary proceedings to be taken on account of goods seized, &c.
19. Letter from William Nodes to the Company as to Watches seized on his premises in Bond Street, September 4th, 1790.
20. Letter from Robert Mason to the Company as to Watches seized on his premises, No. 11, Strand, September 4th, 1790.
21. Letter from Her Majesty's Commissioners of the Customs for the attendance of Members of the Company at the Customs House with reference to the seizure of Watches, &c., 1st December, 1789.
22. Minutes of the Proceedings of the Court of Assistants of the Company as to the protection afforded by Act of the 9 & 10 of William III., February 22nd, 1790.
23. Minutes of the Proceedings of the Court of Assistants of the Company as to the Act of 9 & 10 of William III.
24. Letter of L. Naylor, Attorney, as to Proceedings to be taken in the Court of Common Pleas against the Officers of the Customs for seizing watches, &c., 28th November, 1789.

25. Letter from the Office of Trade, Whitehall, appointing a meeting with some members of the Company, 18th March, 1808.
26. Letter from J. Wilkes as to the Meeting of Parliament, 1808.
27. Letter from the Lords of the Treasury as to the exportation of Watches, 1st April, 1808.
28. Mr. Pengal's Memorial to the Customs.
29. Proposed Questions to be answered by the members of the trade as to engraving the name of the makers upon Watches.
30. Letter from the Lords of the Treasury as to the inspection of Watches for exportation, 24th May, 1808.
31. Memorandum as to the seizure of Watches, &c.
32. Letter from John Wilkes as to a conference with the Court of the Company.
33. Letter from the Secretary of Customs as to the exportation of Watches.
34. Printed Copy of the reasons humbly offered by the Goldsmiths' Company against the Clause proposed to be inserted in a Bill now before Parliament, giving liberty to export Clocks, Watches, &c.
35. Advertisement as to the Bill in Parliament.
36. Minutes of a Conference held between the Company and the Trade.
37. Report as to the steps taken by the Excise Officers.
38. Extracts from the Letters Patents of King Charles I., &c., granted to the Company.
39. Statement as to the decay in the Watch Trade, 25th September, 1812.
40. Report of the Committee to the Court of Assistants as to the watch belonging to Sir Charles Flint, 10th January, 1814.
41. Letter from J. Beckett informing the Court that M. Moreau had been sent out of the Kingdom by order of the Prince Regent, 14th January, 1814.
42. Letter from H. Clarke as to the Minute-Book of the Committee of Freemen and Apprentices.

43. to 45. Letters relating to the presentation of the Company's Petition to Parliament.

46. Letter of Thomas Day as to presenting the above Petition.
47. Draft letter as to an Application to Parliament.
48. Letter of J. Vulliamy upon an Application to Parliament.
49. Draft Report of the Committee appointed by the Court of the Company to frame such regulations as might assist the decayed state of the trade, 25th February, 1814.
50. Report of the Committee for the suppression of the malpractices of the trade, 29th April, 1814.
51. to 53. Three original letters from the Duke of Newcastle and others.
53A. Petition of the Company to Parliament as to the distressed state of the trade.
54. Letter from P. Moore, 3rd March, 1818.
55. Copy of the Resolution passed at a meeting held at the Freemasons' Tavern, as to Apprentices, &c., 14th January, 1814.
56. Copy of the Resolutions passed at a meeting of the Master Watch and Clock makers of London held for the re-establishment of the prosperity of their trade, 11th February, 1814.
57. Copies of the Resolutions passed at a meeting of the workmen in the Watch and Clock Trade, 11th February, 1814.
58. to 62. Letter, with printed Statement and Report of the Committee of practical artisans as to an application to be made to Parliament for an Act for remedying the importation, &c., of Watches, Clocks, &c.
63. Provisions of an Act of Parliament to be entitled "The Clock and Watchmakers' Act."
64. Notice of a Special Court of the Company, to be held on the 7th March, as to the passing of any measure in Parliament not having for its object the welfare and protection of the Company.
65. to 73. Petitions, Letters, Resolutions, &c., as to the passing of a measure for the relief of the Trade.
74. Circular issued by the Company as to the importation of foreign Watches, &c., 20th February, 1817.

74A. A Report of the present destitute state of the Working Watch and Clock makers, March, 1817.

75. to 78. Letters upon the same subject.

79. to 81. Letter and Memorial to Lord Viscount Sidmouth, Secretary of State, as to the destitute state of the Trade.

82. & 83. Letter to, and answer of Lord Sidmouth upon the same subject.

GIFTS to the COMPANY for the POOR, &c.

1. Sir Robert Viner, Knt., Bond of, for repayment of £100 lent by the Company to him, being an assignment upon the Exchequer for £6 yearly from Lady-Day, 1678.
2. Assignment from Jane Goodwin, widow and executor of Thomas Goodwin, assignee of Sir Robert Viner, Knt. and Bart., of a yearly annuity of £3 to the Master Wardens and Fellowship of the Company, signed by Jane Goodwin, 18th January, 1706.
3. Letters of Administration under the seal of the Prerogative Court of Canterbury to Francis Speidell, to pay 3 per cent. per annum out of the exchequer to the Master Wardens, &c., of the Company from Jane Goodwin, executor of Thomas Goodwin, 31st March, 1708.
4. Assignment from Francis Speidell to the Master Wardens of the Company of the 3 per cent. per annum above mentioned, 13th November, 1708.
5. A paper referring to the above.
6. Official copy of the last Will of Thomas Goodwin, dated 13th June, 1694; also probate of the same.

7. Edward East, Deed of Gift from, of £100 to the Master Wardens and Fellowship of the Company, in trust, to pay to five freemen, or their widows, twenty shillings annually, by two half-yearly payments; signed by Edward East.
8. Henry Jones, Deed of Gift from, of £100 to the Master Wardens and Fellowship of the Company, in trust, to pay to five poor freemen, or their widows, twenty shillings annually, 20th June, 1693; signed by Henry Jones.
9. Charles Gretton. Deed of Gift, dated the 1st of September, 1701, between Charles Gretton and the Master Wardens and Fellowship of Clockmakers, giving upon trust to the Company the sum of £50, to pay yearly the sum of fifty shillings to apprentice the sons of deceased Freemen of the Company to the trade of Watch or Clock making (signed by Charles Gretton). There is an endorsement upon the back of the deed, altering and amending the gift. It is dated the 4th of July, 1715, and signed by Charles Gretton and the Master and Wardens.

10. to 20. Bank Stock. Original Receipts for the Bank of England Stock, 1697; with receipts for interest upon, 1701, &c.

21. Samuel Wilson. Extract from the Register of the Prerogative Court of Canterbury, of the last Will and Testament of, leaving money to be let out on loan to young tradesmen.
22. Devereux Bowley. Extract from the Will of, leaving £500 4 per cent. Bank Annuities to the poor of the Company.

23. & 24. William James Frodsham. Extract from the Will of, leaving £1,000 3 per cent. Bank Annuities to the poor of the Company, 1850.

25. & 26. Samuel Fenn. Letter from Joseph Fenn, enclosing an Extract from the Will of his late uncle, Samuel Fenn, leaving £200 Bank Stock to the poor of the Company, 1821.

Charities of the Company.

27. Letters from Nicholas Carlisle, Secretary to the Charity Commissioners, for a return of all Charities connected with the Company, September 25th, 1820.
28. Copy of the Commission.
29. Letter from Nicholas Carlisle, enclosing a copy of the Commissioners' Report upon the Charities of the Company.
30. Printed Copy of the Charities of the Company.
31. to 39. Letters from Charity Commissioners, under 16 & 17 Vict. cap. 137, as to the Charities of the Company.

Non-Freemen and Apprentices.

40. Order of the Recorder of London to compel persons carrying on the trade of Watch and Clock makers to become free of the Clockmakers' Company, 4th August, 1641.
41. Informations against persons using the Art of Watch and Clock making who had not served their apprenticeship thereto, 1652-4.
42. Letter addressed to the Court of the Company, for redressing the grievances suffered by the Trade, 1656, signed by the Members.
43. Heads of Ordinances referring to the employment of Foreigners and Non-Freemen in the Art of Watchmaking, ordered to be printed (two documents).
44. Copy of Advertisement respecting bad work to be inserted in the Newspapers.
45. A List of the number of Apprentices bound, copied from the Orphan Books.
46. A List of the Watch and Clock makers who keep shops within the City of London, and are free of the Clockmakers' Company, and a List of those who are not free.
47. & 48. Memorial from the Members of the Trade to the Court of Assistants, against Non-Freemen exercising the craft of Watchmaking, with the Answer of the Court thereto.

49. Forfeits in the Company for Non-appearance by the hour appointed.

50. to 55. Several Papers, Letters, &c., upon Apprentices, &c.

56. to 65. Papers and Letters referring to dispute between the Spectacle Makers' Company and the Clockmakers' Company.

PROCEEDINGS as to the GRANTING of LETTERS PATENT for IMPROVEMENTS in WATCHMAKING, &c.

1. Order of the King in Council, 2nd March, 1687, setting forth that his Majesty having appointed the 24th February last to hear the Master Wardens and Assistants of the Fellowship of the Clockmakers' Company against the granting of a Patent for the making and managing all Pulling Clocks and Watches, usually called repeating clocks, to Edward Barlow; and after hearing both parties by their counsel, ordered that no Patent be granted.
2. Observations upon the Jewelled Watch named Ignatius Huggeford. This watch had been produced before the Committee of the House of Commons, and confirmed them against granting the Patent applied for by Nicholas Facio, Peter Debaufree, and Jacob Debaufree. The watch had a stone fixed in the cock and balance work. This Paper gives a most interesting account of the Maker.
3. Jewelling Watches, Clocks, &c. Copy of a Petition of Nicholas Facio, Gent., and Peter Debaufree, and Jacob Debaufree, Watchmakers, to the House of Commons, 6th December, third year of the reign of Queen Anne. It sets forth that Her Majesty had

granted by Letters Patent to the said Petitioners, the sole use and exercise within the United Kingdom, and her other dominions, of a certain Art or Invention, or working or figuring precious or more common stones, and made use of in clock or watch work for fourteen years; but that on acccount of the expenses of improving the invention, &c., soliciting a longer term of years. Leave given to bring in a Bill, 9th December. Bill brought in by the Marquis of Hartington to carry out the object of the Petition, and read a first time.

14th December, read a second time.

18th December, Petition of the Clock and Watch Makers in and about the Cities of London and Westminster with reference to the above, presented to the House of Commons, referred to the Committee to whom the Bill had been referred, with leave to the Petitioners to be heard by counsel before the Committee.

4. to 37. Letters, Petitions, &c., on the subject of Clay's Patent for Repeating Watches, with copy of Letters Patent, &c.

38. Copy of Letters Patents granted to Joseph Bosley, of Leadenhall Street, for improvements made in watches, by George II.

39. Copy of Mr. Bosley's Petition for a Patent, with Mr. Murray's opinion thereon, January, 1755.

40. Extracts from Acts of Parliament for preventing frauds in gold and silver wares, &c.

41. Letter from Thomas Lane, Clerk of the Goldsmiths' Company, upon the above subject, 7th May, 1788.

42. Report of the Committee appointed by the General Meeting of the Clock and Watch Makers of the Cities of London and Westminster, 3rd December, 1789.

43. to 77. Letters and Opinions of the Members of the Trade, in answer to questions proposed to them by a Committee of the Company as to engraving the name of the makers upon watches and clocks, and pirating the name of any maker upon either watches or clocks.

78. Report of the Committee appointed by the Company upon the above question, with a fair copy of the correspondence, opinions, &c.

79. & 80. Correspondence between the Company and Privy Council for Trade, &c.; and draft of a proposed Act of Parliament for regulating the importation and exportation of watches, &c.

81. Copy of a Bill for regulating the importation of clocks and watches, &c.

82. & 83. Sketch of a Bill to the same purpose.

84. Extracts made by order of the Company as to pirating the names of good makers to bad work.

85. Memorial of the Master, Wardens, and Court of Assistants to the Committee of the Lords of Trade, 1809.

86. Letter from the Goldsmiths' Company to the Clockmakers' Company, 28th October, 1812.

87. Statement of the number of gold and silver watch-cases marked at Goldsmiths' Hall from 1791 to 1797.

88. to 133. Letters, Opinions, Reports, &c., with reference to the marking of gold and silver watch-cases, bows, and pendants, &c.

134. Letter from the Secretary of the Customs as to the duty to be levied upon watches, &c., 30th June, 1812.

135. Letter from the Goldsmiths' Company to the Lords of Trade as to County Hall Marks upon watch-cases, &c., 19th June, 1830.

136. to 138. Copy of a Memorial from the Clockmakers' Company to the Lords of the Treasury as to the above question, 1830.

139. Letter from Spring Rice to the Company as to the importation of foreign clocks, watches, &c., 2nd March, 1832.

140. Copy of an Advertisement upon the same subject.

141. & 142. Returns of the number of watches imported without paying duty from 1829-32.

143. Copy of a Memorial of the Company to the Board of Trade, praying them to take steps for the protection of the trade.

144. to 161. Letters as to marking Foreign Clocks, Watches, &c., with the names of English Makers, &c., &c., 1839-42.

COMPANIES for MAKING WATCHES, &c.

1. to 8. Letters, &c., as to the importation of watches, &c.

9. to 15. Letter, Prospectus, Statement, &c., of the British Watch and Clock making Company.

16. *Neuchâtel Gazette*, with an account of Ingolts's Patent for watch-making, 13th April, 1843.

17. The Prospectus of the National Company for the Manufacture of Watches.

18. The Prospectus of the Patent Chronometer Watch and Clock Company, Philcox's patent.

19. Indenture from the Lords of the Treasury, depositing three standards of brass for measuring, 4th September, 1671.

20. Order of the Lord Mayor (Abney), inflicting a fine of £10 upon Mr. Fromanteel, for refusing to serve the office of Steward of the Company.

21. to 25. Case and Opinions as to the powers of the Company for compelling persons living within the City and its Liberties, and carrying on the trade of watchmakers, to be made free of the Company.

26. Letter from the Lord Mayor and Court of Aldermen to the Company, for a contribution towards defraying the expenses incurred in maintaining the Troops sent into the City for the protection of public and private property during the late tumults, 19th July, 1780.

27. Letter from the Lord Mayor (Plomer), enclosing a copy of a letter received from the Earl of Selburne for augmenting the domestic forces of the nation.

28. Letter to the Company from the Sheriffs of London as to a grant of money to assist the Society for the Discharge of the Persons Confined for Small Debts, with a view to celebrate His Majesty's 50th anniversary of accession to the Throne, 20th October, 1809.

29. Reply of the Company.

30. Letter from Peter Lock, Dep. Patent Searcher, London Docks, as to the seizure of 140 Watches made by Jew Watchmakers, with fictitious names, intended for exportation to Charlestown, 11th August, 1810.
31. Letter from Henry Clarke as to a certificate being given by the Company to Freemen, 8th October, 1812.
32. Letter announcing the death of Mr. Henry Potter, Master of the Company, 4th September, 1813.
33. Letter of Henry Clarke, returning an old watch and various movements.
34. & 35. Letters as to Officers of the Company.
36. Letter from Charles Smith, testifying that William Gammon had served his apprenticeship with him, and requesting that he may be admitted to the Freedom of the Company.
37. A Protest against the Proceedings of the Company, signed by Isaac Rogers and Henry Clarke, 25th February, 1814.
38. to 40. A List of the Books, Charter, Bye-Laws, Deeds, and Property of the Company, signed by Members of the Court, 1817 to 1818.
41. to 45. Letters, Resolutions, Petitions, &c., relative to the Warehousing Bill now before Parliament, June, 1822.
46. Copy of an Original Letter from Mr. Thomas Reid, of Edinburgh, to Mr. B. L. Vulliamy, 26th January, 1821.
47. to 49. Two Letters from the Hon. Anne Seymour Damer, presenting a foreign Watch to the Company's Collection; with the thanks of the Court for the same, 1817.
50. Letter from Mr. William Harris, refusing to present the Resolution of the Company to the Duke of Sussex, 11th January, 1817.
51. Copy of the Resolution.
52. Report of a Committee to the Court as to the Refusal of Mr. Harris to present the Resolution of the Court, 3rd February, 1817.

53. Memorial from the Liverymen and Freemen of the Company as to the presentation of the Freedom of the Company to the Duke of Sussex, signed by thirty-four Members, 3rd February, 1817.

54. & 55. The Distress in the Watch and Clock Trade in the Parish of St. Luke's, 1816 and 1817.

56. Copy of an Advertisement of Mr. Fearn as to Porcelain and Bronze Clocks, &c., 1832.

57. Letter from Wm. Auld, Esq., presenting an engraved Portrait of Mr. Reid, 1831.

58. Copy of a Letter from the Clerk of the Company as to putting up the Arms of the Company in one of the windows of the New Hall at Christ's Hospital, 10th March, 1841.

59. Thanks to the Governors of the Hospital for the same, 13th March, 1841.

60. & 61. Letters from Charles Frodsham, Esq., presenting a copy of the portrait of his father, 1858.

62. Letter from Thomas Reid, thanking the Court of the Company for electing him an Honorary Member, 6th December, 1825.

63. & 64. Letters from R. Hartley Kennedy, Esq., to the Company, as to presenting the Honorary Freedom of the Company to Sir Jamsetjee Jeejeebhoy, Knt., 1855.

65. Printed Paper referring to the same.

66. Original Letter from Cursetjee Jamsetjee, acknowledging the Honorary Freedom of the Company. Bombay, 31st March, 1855.

67. Original Letter from Sir Jamsetjee Jeejeebhoy, acknowledging the Honorary Freedom of the Company. Bombay, 3rd March, 1855.

68. Letter enclosing a Bank Post Bill for £150, to the Charitable Fund of the Company, from Sir Jamsetjee Jeejeebhoy.

69. Copy of Letter of Thanks from the Company for the same, July 7, 1855.

70. & 71. Letter of Thanks from Cursetjee Jamsetjee and Sir Jamsetjee Jeejeebhoy, 26th June, 1855.

72. & 73. Letters from Judge Halliburton, regretting that his immediate return to America will prevent him from becoming a Member of the Company, 9th May, 1855, and 10th February, 1857.

73. Letter from R. Hartley Kennedy, Esq., as to investing the Funds of the Company, March 29th, 1855.

74. Letter from R. Hartley Kennedy, Esq., upon his election to the office of Sheriff of London and Middlesex, September, 1855.

75. to 84. Letters and Memorial with reference to R. Hartley Kennedy's affairs, 1858.

85. to 94. Letters, Reports, and Memorandum with reference to the Library of the Company.

95. to 101. Letters, Petitions, and Documents with reference to the Charitable Trusts Bill.

102. Documents relating to a Clock for the Royal Exchange, July 19th, 1843.

103. Transcript of Notes taken at the Mansion House upon Mr. Anthony Myers being charged with having six gold watches with the forged marks of the Goldsmiths' Company upon them, 9th May, 1850.

TAX UPON CLOCKS, WATCHES, &c.

1. Proposed Alterations and Additions to the Act of Parliament for enabling His Majesty to levy a Tax on Foreign Clocks and Watches.

2. Return to Parliament of the number and amount of Licences granted for selling Gold or Silver Plate in Great Britain for ten years, from 1807 to 1816.

3. to 17. Petitions of distressed Watchmakers of Coventry, London, Roxburgh, &c., to Parliament, and Proceedings thereon.

18. Heads to the Clauses in the Bill proposed by the Committee of the Watch and Clock Trade.
19. Proposed Alterations and Additions to the Act of Parliament for enabling His Majesty to levy a Duty on foreign Clocks and Watches.
20. A Bill for more effectually discovering the Longitude at Sea, &c., 9th March, 1818.
21. A Bill to regulate the Manufacture of Clocks and Watches, 14th June, 1819.
22. Memorial of the Company to the Treasury, March 5th, 1830.
23. to 43. Letters, Returns, &c., as to the stamping of all foreign Watches, and levying a Duty thereupon, &c.
44. A Return to Parliament of the number of Metal Clocks and Watches, and of Movements, &c., Exported and Imported since 1825, 5th July, 1833.
45. Advertisements cautioning the Public against purchasing Foreign Watches with English makers' names fraudulently affixed to them, 1823.
46. to 69. Letters, &c., upon the Illicit Importation of Clocks, Watches, &c.
70. to 77. Letters, &c., upon the Seizure at the Customs of Watch-dials, Watches, &c.
78. Petition of the Company to the House of Commons as to the Seizure of Watches, &c., by the Customs, and the Sale thereof, February 8th, 1849.
79. to 91. Letter upon the same subject.
92. & 93. Memorials from the Company as to the Importation of Foreign Clocks, Watches, &c., 1851-52.

LETTERS and CORRESPONDENCE with the LORDS of TRADE on the ADJUSTMENT of COUNTERVAILING DUTIES of CLOCKS, WATCHES, &c., 1786-7.

Presented by Mr. BENJ. L. VULLIAMY, December, 1812.

1. & 2. Letters from Mr. Cottrell to Mr. Vulliamy, 1786-7.
3. Suggestions as to marking foreign Watches, Clocks, &c.
4. Letter from F. Upjohn upon the same subject.
5. Suggestions for a Duty upon Watches, Clocks, &c.
6. Letter from Mr. Tutet, Master of the Company, upon the proposed Duties, 16th January, 1787.
7. Letter from S. Cottrell to Mr. Vulliamy, appointing a meeting with the Lords of Trade, 21st February, 1787.
8. Copy of Questions delivered by order of the Lords of the Committee of Council for Trade to Messrs. Vulliamy, Upjohn, Jackson, and Potter, for their answer in writing.
9. Copy of a Bill for granting to His Majesty certain Duties on Clocks and Watches, with MS. alterations in the margin.
10. MS. Alterations to be made in the above.
11. Representation of the Master, Wardens, and Court of Assistants, to the Right Hon. William Pitt, Chancellor of the Exchequer, &c., as to the proposed tax upon clocks and watches, 6th July, 1797.
12. to 14. Statements submitted to the Chancellor of the Exchequer by the Master of the Company upon the subject of a new standard for gold.
15. & 16. Copy of a Letter from Mr. G. Rose, enclosing a Statement from the Goldsmiths' Company submitted to Mr. Pitt, 14th July, 1797.
17. Letter from George Rose, stating Mr. Pitt's views as to the proposed Bill, 18th July, 1797.

18. Memorial of the Company to Mr. Pitt as to the proposed Tax upon Watches, Clocks, &c., 28th November, 1797.
19. The Number and Weight of Gold and Silver Watch-cases marked at Goldsmiths' Hall in 1796 and 1797.
20. Copy of a Petition from the Company, praying for the Repeal of an Act for Levying a Duty upon Watches, Clocks, &c., 1798.

21. to 32. Letters, Memoranda, &c., referring to the Tax upon Watches, &c.

LIBRARY COMMITTEE.

Library Committee. Minute-Book of the Library Committee, 1814 to 1836. Folio.
Cash-Book, 1714 to 1828. 4to.
Catalogue of the Library. 3 vols. 4to.
Issue-Book from 1819 to 1841. 4to.

PRINTS OF CLOCKS

AND

DESIGNS FOR CLOCKS.

A Collection of PRINTS of CLOCKS and DESIGNS for CLOCKS, &c. Presented by the late B. L. VULLIAMY.

1. Astronomicall and Chronologicall Clock, shewing all the most usefull parts of an almanack, by Jos. Naylor, near Namptwich, Cheshire, 1750-1.
2. Description de l'Horologeque Messieurs Les Comtes de Lyon ont fait faire dans l'Église de St. Jean l'année, 1660, Opera et Studio Guillelmi Noorrisson Lugduni. Thourncyfor sculp. 1677.
3. The same, a later edition.

STRASBURG. The famous CATHEDRAL CLOCK, Views of.

4. Horologium Astronomicum Argentoratense (with a description of the same in French).
5. Vera effigies ac descriptio Astronomici Horologii Argentinensis in summo Templo extructi anno Christi M.D.LXXIV.
6. Horologium Astronomicum Argentoratense (with a description of the work in Latin).
7. Eigentliche Fürbildung und beschreibung desz Kunstreichen Astronomischen uhrwercks zu Straszburg. Brunn sculp. (Description in German.)

8. Eigendliche Fürbildung und beschreibung desz newen Kunstlichen Astronomischen uhrwercks zu Straszburg im Mönster disz, 1574, Jahr vollendet zusehen. (Description in German.)
9. L'Horologe de Strasbourg.
10. A true figure of the famous Clock of Strasbourg.
11. A small view of the Clock.
12. The Microcosm, with portraits of Sir Isaac Newton and Mr. Henry Bridges.
13. A design for a Clock, XXXI.
14. A design for a Clock, with striking-bells.
15. A design for a Clock, XXVIII.
16. A new and accurate Geographical Clock, shewing the time of day or night at most of the principal places of the world at one view, by John Gibson, 1761.
17. A design for a Clock, Philips del. et sculp., 1721.
18. A perspective view of the Altitude and Azimuth Instrument recently erected at the Royal Observatory, Greenwich, 1847, Hare del. et sculp.
19. The very extraordinary Sun-Dial facing the market-place at Settle, in the West Riding of Yorkshire. Buck and Feary del. et sculp., 1778.
20. A very curious and early wood engraving [of a Village Fair], shewing the church with a Clock in the tower, H. S. Beham, of Nuremburg, 1531-1549. [The works of this artist are now exceedingly rare].
21. An extraordinary Clock, the production of Jacob Lovelace, of Exeter; it took thirty-four years to complete the work; he died in 1716. The move ments are — 1st, a moving panorama, descriptive of day and night; day is beautifully represented by Apollo in his car drawn by four spirited coursers, accompanied by the twelve hours; and Diana in her car drawn by stags, attended by the twelve hours, represents night. 2nd, Two gilt figures in Roman costume, who turn their heads and salute with their swords as the panorama revolves, and also move in the same manner while the bells are ringing. 3rd, A perpetual almanack, shewing the day of the month on a semicircular plate, the index returning to the first day of every month on the close of each month

without alteration, even in Leap Years, regulated only once in 130 years. 4th, A circle, the index of which shews the day of the week with its appropriate planet. 5th, A perpetual almanack, shewing the days of the month weekly, and the equation of time. 6th, A circle shewing the Leap Year, the index revolving only once in four years. 7th, A timepiece, that strikes the hours and chimes the quarters, on the face of which the whole of the twenty-fours hours (twelve day and twelve night) are shewn and regulated. Within this circle the sun is seen in his course with the time of rising and setting by a horizon receding or advancing as the days lengthen or shorten; and under is seen the moon, shewing her different quarters, phases, age, &c. 8th, Two female figures, one on each side of the dial-plate, representing Fame and Terpsichore, who move in time when the organ plays. 9th, A movement regulating the clock as a repeater to strike or be silent. 10th, Saturn, the god of Time, who beats in movement while the organ plays. 11th, A circle on the face shews the names of ten celebrated ancient tunes played by the organ in the interior of the cabinet every four hours. 12th, A belfry with six ringers, who ring a merry peal *ad libitum;* the interior of this part of the cabinet is ornamented with beautiful paintings representing some of the principal ancient buildings of the city of Exeter. 13th, Connected with the organ there is a bird-organ, which plays when required. Hackett, Litho., 1833.

22. A self-moving wheel for the working of all manner of wheelwork, described in the *Gazetteer* of June 15th, 1749.

A LIST OF WATCHES, WATCH MOVEMENTS, CLOCKS, &c.

ADDIS, Cornhill, London.

William, the son of Robert Addis, of Bristol; apprenticed to George Sims May'1, 1738; made Free of the Company February 3, 1745; elected on the Court of Assistants April 2, 1759; served the office of Warden 1761-63; Master, 1764-5.

1. Gilt Movement (partially to pieces), No. 2611.

Presented by F. B. ADAMS, 1869.

ANDERVALT, PASQUALE, Trieste.

2. A Hydrogen Gas Clock. The motive power of this Clock is hydrogen gas generated by the action of diluted sulphuric acid on a ball of zinc. The gas, thus formed, forces upwards a bell-shaped glass-receiver, which keeps the clock going until it nearly reaches the top of the coloured glass jar, when, by the action of a delicate lever, two valves are opened simultaneously, one allowing the gas to escape, thereby causing the receiver to descend, and the other permitting a fresh zinc pellet to fall into the acid. The same operation is repeated as long as the materials for making the gas are supplied, and this is effected without winding or manipulation of any kind.

Presented by Wm. WING, 1874.

ANONYMOUS.

3. An ALARUM, in a beautifully engraved and pierced silver case, silver dial, with enamel figures.

This has been constructed to be used in conjunction with a watch or timepiece, having a hollow square for the insertion of the fuzee arbor; the watch so used driving the motion-work of the alarum.

4. A SILVER ALARUM, intended to be applied to the fuzee of a watch.

5. A GILT OPEN-FACE WATCH, with gold dial, horizontal escapement. No. 16023.

This watch plays a tune at each hour, and can be made to play at pleasure.

Presented by F. B. ADAMS, 1870.

6. A SMALL OCTAGON WATCH, in a CRYSTAL CASE, engraved and gilt dial, hour hand only, with raised pins at each hour for feeling the time at night, called a "Touch Watch." A curious specimen of the Art.

Presented by Mr. AULD, 1825.

7. AN OVAL SECONDS WATCH, with enamel dial, duplex escapement. An early specimen, formerly enclosed in a locket.

Presented by Messrs. F. B. ADAMS & SONS, 1849.

8. A SMALL SQUARE-WEIGHT BALANCE TIME-PIECE, hour hand only, silver dial, brass case, beautifully engraved and gilt. The subject being warriors on either side, and in the front a view of a town. At the top death's head and hour-glass, with the motto, "Respice finem." It is in a good state of preservation, is an interesting specimen of the Art, and considered unique.

Presented by GEORGE ATKINS, Clerk of the Company.

9. A Very Small Horizontal Movement, formerly set in a ring.

10. A Very Small Vertical Movement. No fuzee. Probably intended for a ring.

11. Part of an old French Eight-day Watch Movement, with two barrels in gear by teeth on rim, fuzee and chain, vertical escapement.

Presented by CHARLES FRODSHAM & Co., 1875.

12. An Early Specimen of Duplex Escapement.

13. A Very Fine Specimen of a Centre-Seconds Lancashire Movement.

Presented by Messrs. F. B. ADAMS & SONS, 1848.

14. A Vertical Lancashire Movement.

Presented by Messrs. F. B. ADAMS & SONS.

15. A White Skin Case, with Silver Mounting. A very beautiful specimen of case jointing.

Presented by JOHN GRANT, 1874.

16. A Black Enamelled Case, ornamented.

17. Outer Case of a Watch, engraved and gilt, with an enamel portrait of a lady.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1873.

18. Two Antique Movements, with wheels, pivotted. Found in the Company's chest.

19. Two Movements, with square-cut teeth. One a repeater, the other uncertain.

20. A Large Pocket Chronometer, Lancashire Movement.

Presented by F. B. ADAMS, July, 1869.

21. A Movement for a small Pocket Chronometer.

Presented by F. B. ADAMS, July, 1869.

22. Two Skeleton Movements.

Presented by F. B. ADAMS, 1869.

23. An Ancient Movement, with Tulip pillars.

24. An Ancient Movement, with Tulip pillars.

25. Two Movements by Ackers. 1778.

26. An Antique Movement, with Tulip pillars.

27. An Antique Movement, with peculiar Tulip pillars.

28. Regulator Pallets.

Presented by B. L VULLIAMY.

29. Nine Dials, some enamelled on gold.

30. An Enamelled Gold Dial, with seconds.

Cost of Manufacture, £1 17*s.* 0*d.*

Presented by J. B. VULLIAMY, 1778.

31. A Small Antique Breguet Key.

Presented by Mr. WEBSTER.

32. Several Early Watch-keys.

33. Two Gold Antique Watch-keys, one of them enamelled.

Presented by JOHN GRANT, 1875.

34. A Rude Specimen of a Wheel-cutting Machine, to be used in the vice.

Presented by GEORGE PHILCOX, 1875.

35. A Plain Vertical Repeating Movement, of French manufacture, with enamel dial, chiefly remarkable for its diminutive proportions.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

36. A Very Thick Vertical Movement. The engraving of the cock and slide are of a very rude character, indicating an early period of manufacture.

Presented by EDWARD STREETER, 1875.

37. Four sets of Antique Watch Pillars, of Lancashire manufacture.

Presented by C. R. HARLE, 1875.

ANOGENT ANGUIER.

38. A Silver-gilt Oval Hunting Watch, silver engraved edge. Made previous to the introduction of chains, gilt and engraved allegorical dial.

Presented by CHARLES THISTLETON, of Whitehall Place.

ARNOLD, JOHN.

39. A fine old specimen of a Pocket Chronometer, in silver-gilt case. Pivot detent escapement, with figure S compensation pieces carrying weights in direct line to centre of balance, re-sprung by Charles Frodsham for the purpose of testing the compensation, No. 28.

Presented by CHARLES FRODSHAM & Co., 1875.

40. Specimen of a one-day Marine Chronometer, in octagon case, enamel dial, epicycloidal escape-wheel, adjusting balance spring stud, No. 14.

Presented by CHARLES FRODSHAM & Co., 1875.

41. A fine specimen of a two-days Marine Chronometer, in octagon case, with glass bottom and medallions at side, enamel dial, epicycloidal escape-wheel, movement jewelled to the centre wheel, gold balance spring, No. $\frac{101}{191}$.

Presented by CHARLES FRODSHAM & Co , 1875.

ATKINS, FRANCIS.

Born in 1730; apprenticed to Joshua Hassell December 1, 1746; admitted to the Freedom, April 2, 1759: to the Livery, December 4, 1769: chosen on the Court of Assistants April 5, 1773: served the office of Warden 1777-79: chosen Master, Septem-

ber 29, 1780; elected Clerk of the Company, December 5, 1785; succeeded upon his decease by his son George Atkins, December 22, 1809.

42. Plain Vertical Movement, No. 3659.

Presented by his Grandson, S. E. ATKINS, 1875.

BARON, JEAN, Etrecht.

43. Vertical Movement, with pierced pillars, enamel dial.

Presented by EDWARD STREETER, 1875.

BARRONNEAU, L., Paris.

44. French vertical Movement, without dial, made previous to the introduction of chains, hour-wheel turned by a lanthorn pinion on fuzee arbor.

Presented by B. L. VULLIAMY, 1816.

BARROW, NATHANIEL, Londini.

Apprenticed to the Company, 26 January, 1653; made Free, 28 January, 1660; chosen to the office of Warden, 14 October, 1685; Master, 29 September, 1689.

45. Silver Double-case Astronomical Watch, denotes the hours, days of the week, months of the year, equation, moon's age, &c.

46. Metal Double-case Repeating Watch, with enamel dial, the inner case pierced and gilt.

Presented by JOSEPH FENN, 1862.

BARTHET, E. A., Marseille.

47. Thirty Hour Marine Chronometer, of French manufacture. Name, Barthet, No. 10. A very fine specimen of highly finished work; has a beautiful proportioned barrel pendulum spring. The hours, minutes, and seconds are shown on distinct circles. It has also a metallic thermometer, the arrangements for which are between the dial and pillar plate, the scale, Reaumer's,

being indicated on the dial-plate by a delicate hand traversing about 150 degrees.

This chronometer was picked up at sea from an abandoned vessel by the late Sir Wm. Walker, in the year 1846, when in command of the "Monarch," belonging to Messrs. Green, of Blackwall, and was purchased of him for fifteen pounds by Messrs. Brockbank & Atkins.

Presented by Deputy S. E. ATKINS, Clerk of the Company, sole representative of that Firm, 1875.

BETTS, SAMUEL, Londini.

Apprenticed to Samuel Davis, for Job Betts, 7 October, 1675; made Free of the Company, 7 October, 1682.

48. Green Enamelled Gold Watch (case damaged), case enamelled, with landscapes inside, green enamelled dial, hour-hand only.

Purchased by the Company, 1816.

BINKS.

49. Gilt Lever Movement, jewelled throughout, capped, No. 759.

Presented by F. B. ADAMS, 1869.

BIZOT, à Paris.

50. A large thick Vertical Movement, with rack and pinion, regulator cock pierced and engraved.

Presented by B. L. VULLIAMY, 1849.

BORRETT, GEORGE, Stowmarket.

51. Plain Vertical Movement, with square pillars, enamel dial. The cock and dial elaborately pierced and engraved, No. 120.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

BOYS, A., and DUDUICT, JACQUES.

52. An Ancient Clock Watch, striking on a bell, silver hour circle, hour hand only, the case gilt, pierced, and engraved. It had originally catgut and without pendulum spring, which has since been added, gilt en-

graved face, subject—Actæon. "He saw Diana and her attendants bathing near Gargaphia, and for his rashness in approaching the place, the goddess sprinkled water over him, and he was changed into a stag and devoured by his own dogs."—LEMPRIERE.

Presented by C. R. FLETCHER LUTWIDGE, Esq., Holmrook Hall, Carnforth, through W. WING, Oct., 1874.

BRADFORD, Strand.

53. Silver pair case open-face Watch, with enamel dial, No. 115.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

BRADLEY, LANGLEY, London, N. R. O.

Apprenticed to Joseph Wise, 14 February, 1687; made Free of the Company, 14 February, 1694; served the office of Warden, 1724-26; Master, 1726.

54. Repeating Movement, with Stockden motion.

BRÉGUET [ABRAHAM LOUIS].

55. A small Movement, injured by fire.

Presented by B. L. VULLIAMY, 1849.

BRÉGUET [ABRAHAM LOUIS].

56. Movement only, single hand, ruby cylinder, parachute and compensation, winds up from the centre, No. 1603.

Sold to Mr. Menard by the above Firm in 1806. Cost 840 francs. Purchased by the Company, for £6 10s., in 1853.

BRÉGUET, à Paris.

57. A GOLD OPEN-FACE MINUTE REPEATING WATCH, with Stockden motion. A very beautiful specimen, No. 128.

Presented by F. B. ADAMS, 1870.

BROCKBANK, JOHN, London.

Apprenticed to Jos. Hardin, July 28, 1761; admitted a Freeman of the Company, January 16, 1769; and made a Liveryman, April 7, 1777.

58. Horizontal Centre, Seconds Movement, with going fuzee, enamel dial, capped, beautifully engraved cock and name-piece, No. 1617.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

59. A Machine for calculating the distance travelled by wheeled carriages, made by the late Mr. John Brockbank for his own use, and attached to his gig.

Presented by Mr. Deputy ATKINS, Clerk of the Company, sole representative of the Firm of Brockbank & Atkins, 1875.

BROCKBANKS, London.

John and Myles Brockbank. For John, see above. Myles, the son of Edward Brockbank, of Corners, in Cumberland; apprenticed to his brother John, of 17, Old Jewry, February 1, 1769; admitted a Freeman, July 8, 1776.

60. Thirty Hour Marine Chronometer, about the date 1780, and has an escapement known as the cross spring escapement, upon Earnshaw's principle, a description of which will be found in Earnshaw's Appeal, printed in 1808, and described as an evasion of his patent, with a bitter invective by the author against John Brockbank, whom he charged with having pirated his invention, No. 449.

Presented by Deputy S. E. ATKINS, Clerk of the Company, and sole representative of the Firm of Brockbank & Atkins, 1875.

CABRIERE, CHARLES, London (Broad Street).

Made Free of the Company in 1726; chosen on the Court of Assistants, 4 Oct., 1750; served the Office of Warden in 1754-57; elected Master of the Company, 29 Sept., 1757.

61. Vertical Bell Repeating Movement, No. 2572.

Presented by B. L. VULLIAMY, 1816.

62. Gilt Movement, highly wrought scroll pillars, No. 6017.

Presented by F. B. ADAMS, July, 1869.

63. Vertical Movement, with enamel dial and chased pillars, No. 908.

Presented by EDWARD STREETER, 1875.

CARGUILLOT, JEHAN, Abbeville.

64. Large Silver Clock and Alarm Watch, case pierced and engraved, gilt dial, with enamel hour circle.

Purchased by the Company, for £5, at Windsor, 1848.

CARTWRIGHT, N., Lombard Street, London.

65. Plain Vertical Movement, with curiously pierced silver pillars, enamel dial, gilt pierced hands, No. 2100.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

CARTWRIGHT, THOMAS, Horologs: Principi Londini.

Apprenticed to Christopher Gould, 4 December, 1693.

66. Vertical Movement, with crystal cock, curiously jewelled.

Purchased by the Company, for £1, at Windsor, 1848.

CLAY, WILLIAM, London.

Apprenticed to Jeremiah Gregory, 26 May, 1680; made Free of the Company, 5 December, 1687.

67. Small Silver-gilt Watch, brass engraved dial, hour hand only, made previous to the introduction of chains, box curiously chased with the old English rose, the outer case perfectly plain.

COGNIET, Paris.

68. Metal Gilt Watch, winds up by cannon pinion square, hour hand only, the case embossed and gilt, the subject being Apollo with his lyre.

Purchased by the Company, 1821.

CORUN, à Montpellier.

69. An Ancient Vertical Movement, with enamel dial, and curiously pierced hands, with moveable slide for adjusting the escapement cock, jewelled with a ruby end piece.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1873.

COURT, HENLEY, No. 5.

70. A Box Alarum patent repeater, made to receive any ordinary watch of the period, the fuzee square being inserted in a hollow receptacle attached to a pinion, which, being turned by the fuzee, acts upon a rack having divisions thereon, and by which it is set to the time the Alarum is required to be discharged.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

CREACK, WILLIAM, London.

71. Plain Vertical Movement, with enamel dial, in pair of cases, the outer case embossed and gilt, No. 18573.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

CRONIER, à Paris.

72. Gilt French Movement, double-pin escapement No. 692.

Presented by F. B. ADAMS, July, 1869.

DEBAUFRE, PETER, London.

Made Free of the Company, 1 July, 1689.

73. Curious Silver Watch, with original lever escapement, small crystal at back to show the balance, beats half-seconds, has stop-work, silver dial (outer case wanting), the whole in good preservation.

Purchased by the Company at Alexander Cumming's sale, July, 1815.

DE CHARMES, SIMON, London.

Made Free of the Company, 6 April, 1691.

74. Gold Double-case Repeater, gold dial, No. 27. The case is a fine specimen of early engraving and

piercing. This watch was the property of the Duke of Bridgewater, the originator of the canal called after his name: it was probably made for one of his ancestors, whose coronet (a Baron's) and cypher reversed are engraved on the back.

Presented by B. L. VULLIAMY, 1849.

75. Vertical Movement, with enamel dial.

Presented by B. L VULLIAMY, 1849.

76. Vertical Movement, with pierced tulip pillars.

Presented by EDWARD STREETER, 1875.

DELANDER.

Nathaniel Delander, chosen one of the Court of Assistants April 4, 1743; served the office of Warden in 1745-6, and that of Master in 1747. Daniel Delander and John Delander were also Members of the Company.

77. Gilt Movement, No. 488.

Presented by F. B. ADAMS, July, 1869.

DESBOIS & WHEELER, London.

78. A Metal Watch, No. 760.

Late the property of Lady Frederick Campbell, who was burnt to death at Combe Bank, wife of Lord Frederick Campbell, youngest son of John, Duke of Argyle.

(The curious effects of the fire are shown upon the dial and other portions of the watch.)

DEXTER, M., London.

79. Vertical Movement, enamel dial.

Presented by B. L. VULLIAMY.

DUBOIS et FILS.

80. Centre Seconds' Movement, representing the vibration of the pendulum, silver dial.

DUCOMUN, C^LES. dit BOUDRILE.

81. Vertical Movement (without case), showing the rising and setting of the sun, the days of the month, and the months of the year.

Presented by B. L. VULLIAMY, 1848.

DUNLOP.

82. Small silver name-plate of dial of an Antique Watch.

Presented by JOHN GRANT, April, 1874.

DUPIN, PAUL, London.

83. GOLD-CHASED DOUBLE-CASE VERGE REPEATING WATCH, jewelled, the inner case engraved and pierced, the outer case richly and beautifully chased by Moser, the whole protected by a metal case covered with black skin, ornamented with gilt pins.

Purchased by the Company, 1818.

EAGLETON, CHRISTOPHER, London.

Apprenticed to Charles Halstead, 4 June, 1683.

84. SILVER WATCH, No. 375, silver dial, outer case tortoiseshell, pinned with silver. In good preservation.

Presented by B. L. VULLIAMY.

EAST, EDWARDUS, Londini.

An original Assistant at the incorporation of the Company, 1632; chosen Warden, 1638; Master, 29 September, 1645; and a second time, 4 October, 1652; chosen Treasurer, 11 October, 1687.

85. *SILVER OVAL HUNTING WATCH, with crystal centre, catgut.

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* Mr. East resided in Pall Mall, near the Tennis Court which Charles II., when Prince of Wales, resorted to. He frequently played, the stakes being an "Edwardus East," as His Royal Highness called it; that is, a watch of East's making.

86. Metal Watch, outer case covered with black skin.

87. A Movement, with catgut, hour hand only driven by lanthorn pinion on fuzee arbor. An antique specimen, in good preservation.

88. Clock and Alarm, given to the Company by Mr. Williams, of the House of Commons; movement only. A very large specimen, one hand making a revolution in twelve hours. The Alarm is discharged by moving the centre of the dial, which is of silver, and elaborately engraved. The construction of the Clock is with a locking-wheel. The Alarm was struck upon a bell.

ELLWOOD, MARTIN, London.

Made Free of the Company, January, 1687.

89. Silver Watch, curious tortoiseshell case, inlaid with silver, silver dial.

EMERY, JOSIAH.

90. A Repeating Movement, horizontal escapement, ruby cylinder, helical balance spring with compensation curb, No. 1123.

Presented by CHARLES FRODSHAM & Co., 1875.

FAGUILLON, à Hesdin.

91. A Vertical Movement, no case or dial, the cock curiously pierced and engraved.

Presented by Messrs. ADAMS, 1849.

FROMANTEEL.

Several of this name have been Members of the Company.

92. An Ancient Vertical Movement, with open scroll, engraved cock and slide, open pillars, no dial, hour hand only.

Presented by EDWARD STREETER, 1875.

GLEAVE, MATTHEW.

93. Movement only, no dial or hour-wheel.

GOUGH WILLIAM, London.

94. Silver Watch, silver dial (outer case wanting), No. 475.

There is a peculiarity about the pendant work of this Watch, which is supposed to be for a maintaining power while the watch is being wound up.

Presented by B. L. VULLIAMY, 1816.

GOULLONS, Paris.

95. A very curious small Gold Watch, the case enamelled in various colours, the design being raised in the Arabesque style, [horsehair], prior to the introduction of chains, hour-hand only, ornamental enamelled dial. A very beautiful specimen of the art of enamelling.

Purchased by the Company, 1828.

GRAHAM, GEORGE, Fleet Street.

Apprenticed to Henry Aske, 2 July, 1688; chosen on the Court of Assistants, 2 April, 1716; served the office of Warden, 1719-21; and chosen Master, 29 September, 1722; died November, 1751, aged 75; and was buried in Westminster Abbey.

96. A very sound Jewelled Vertical Movement, enamelled dial. No. 5074.

Presented by Sir JOHN THOROLD, Bart.

GRANT, JOHN (the Elder), Fleet Street.

Apprenticed to Alexander Cumming, his uncle, whom he succeeded in business; elected on the Court of Assistants, Oct. 9, 1809; served the office of Warden, 1810; died May 4, 1810.

97. A Gold Lever Watch, in double case, No. 1479. Weighs 2 oz. 11 dwt. 2 grs. old standard.

This watch has a double-roller escapement, a triangular ruby pin working in fork of lever, the small roller below being slit half way down to allow guard-pin to pass. The teeth of escape-wheel

are upright, and are shaped somewhat like Arnold's cycloidal tooth-wheel, the action of the pallets being on the inside edges of the teeth. The pallets are fixed into arms forming a sort of fork working inside the escape-wheel teeth. This is one of the early attempts at the *detached* Lever Escapement.

Presented by his Son, JOHN GRANT, 12th October, 1874.

98. Gold Lever Watch, double bottom, No. 2802, weighs 3 oz. 6 dwt. 2 grains.

This Watch has a double roller escapement, the ruby pin being placed behind instead of in front, as in the ordinary lever escapement, and the fork of the lever carried round the balance staff, the ends being turned up, so that the ruby pin, which is perfectly square, acts between them. A small roller is placed below, partly filed away, to allow the guard pin to pass. The escape-wheel is placed vertically, being driven by a contrite wheel, the pallets placed one below the other, allowing each tooth to glide off one pallet on to the other, very similar to Vulliamy's clock-pin escapement; a delicate banking pin, adjustable, is secured to the top coil of pendulum spring, which acts when necessary on the spring stud.

Each of these specimens has a compensation balance and cylindrical spring, and they are altogether of the highest character as regards workmanship.

Presented by his Son, JOHN GRANT, 12th October, 1874.

G(RANT), J(OHN) (the Elder).

99. Curious Lever Movement, with two balances, connected by a tooth-wheel, with two pendulum springs acting in contrary directions, with initials, "J. G., May, 1800," figured in Cumming's Works.

Presented by his Son, JOHN GRANT, 1850.

G(RANT), J(OHN) (the Elder).

100. Silver Double-case, Open-face Watch, with enamel dial, vertical escapement.

This Watch has a very peculiar mode of recording the time as a repeater, by simply turning the pendant gently round from left to right, as far as it will go, counting the number of ticks it makes on its return, which corresponds with the hour indicated on the dial by the hands, the pendant returning of itself. It is believed to be unique, and is curious from the singular method adopted to cause it to repeat the hours.

Presented by his Son, JOHN GRANT, 1873.

GRAPE, JOHN, London.

101. Plain Vertical Movement, with square pillars. Marked CX.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

GRAY, BENJAMIN, London, Watchmaker to King George II.

102. Vertical Repeating Movement, enamel dial and silver rim. N. X. I.

103. Plain Vertical Movement, dial and hands, No. 457. Made in 1737.

Presented by B. L. VULLIAMY, 1849.

104. GOLD REPEATER, with Apollo's Head at the back. The running train between the plate and dial, marked r. s. c. Made originally for Sir Peter Somes, May 1st, 1732.

105. SILVER PEDOMETER, silver dial. Has the following inscription on the back :—

"Made by B. Gray, Clockmaker to George II. Given to the Company of Clockmakers by his Great-Grandson, B. L. Vulliamy, 1849."

Presented by B. L. VULLIAMY, 1849.

106. A piece of mechanism in form of a WATCH, engraved at back, "made by B. Gray, clockmaker to George II., given to Charles Frodsham by his great-grandson, B. L. Vulliamy, 1849," supposed to be an idea for a pedometer for riding purposes.

Presented by CHARLES FRODSHAM & Co., 1875.

GRAY, B., and VULLIAMY JUST, London.

107. GOLD WATCH, vertical, enamel dial on gold. N. N. S. Outer case of shagreen. Cost, in 1753, £13 15s. 7d.* to manufacture.

Presented by B. L. VULLIAMY, 1853.

* These prices are curious as contrasted with the cost of similar watches at the present day.

GRAY, JOSEPH (Shaston).

108. A very Ancient Vertical Movement, with curiously pierced pillars, an early attempt at regulation by means of a screw and Index.

Presented by C. R. HARLE, 1875.

GREBAUNALL, ROBERT, Rouen.

109. SILVER OCTAGON, engraved case, subject, Jacob's Dream. Gilt dial, coat of arms inside the bottom, date about the middle of the sixteenth century. A very good specimen.

Purchased by the Company, 1863.

GREGG, FRANCIS, London.

Apprenticed to John Clowes, 7 September, 1691.

110. A BELL REPEATER, with silver cap, No. 6226.

Presented by B. L. VULLIAMY, 1816.

111. A Repeating Movement, capped, enamel dial.

Presented by B. L. VULLIAMY, 1816.

GRETTON, CHARLES, London.

Apprenticed to Lionel Wythe, 30 June, 1662; made Free of the Company, June 3, 1672; chosen on the Court of Assistants, 1 July, 1689; served the office of Warden, 1697-9; chosen to the office of Master, 30 September, 1700; and was a Benefactor to the Company.

112. A GOLD DOUBLE-CASE WATCH, with coloured gold chased dial, jewelled, the outer case struck up in imitation of engine-turning.

113. A SILVER DOUBLE-CASE ALARM WATCH, with silver dial. The box curiously pierced and engraved; the outer case being of skin, inlaid with silver.

GRIGNION and SON, London.

114. An EIGHT DAYS REGULATOR, with 12 inch silvered dial plate, beating dead seconds. The escapement

is of a very peculiar and delicate construction, the pallet receiving impulse on one side only. There is also a very ingenious and simple mode of keeping the clock going during the time of winding. On inserting the key, a lever is raised which puts into gear a spring acting directly on the centre wheel, whereby the power is maintained during the process of winding. On withdrawing the key the spring becomes released, and returns to its former inert position.

Presented by JOHN GRANT, 1875.

HALEY, CHARLES.

115. Gilt Movement, Remontoir escapement, $\frac{P.}{D.N.}$, Inv^{t}. et fecit.

Presented by F. B. ADAMS, July, 1869.

116. Gilt Pocket Chronometer, with enamel dial, pivoted detent, and peculiarly constructed compensation balance, No. $\frac{C.A.}{1513}$ Inv^{t}. et fecit.

Presented by F. B. ADAMS, July, 1869.

HANDS, TIM., London.

117. Plain Vertical Movement, no dial, No. 885.

Presented by B. L. VULLIAMY, 1849.

HARPER, ——, London.

118. Plain Verge Movement, no dial, Tulip pillars.

Presented by Messrs. G. & S. E ATKINS, 1850.

HARRISON, JOHN.

(*See* Portraits.)

119. Long Eight Days Clock in Wainscot Case, with transparent dial, the frames, wheels, and pinions being of solid oak, made by John Harrison, being his first production while following the trade of a carpenter at Foulby, near Pontefract, Yorkshire.

One very similar is preserved at the South Kensington Museum, date about 1715.

Presented by W. THOMS, 1875.

HERBERT, CORNELIUS, "London Bridge."

The Records of the Company show that there were two of this name, one apprenticed to the other, 19 January, 1690; made Free, 3 March, 1700; chosen one of the Court of Assistants, 14 January, 1722; served the office of Warden, 1725-6; and chosen Master, 29 Sept., 1727. The probability is that this was made by the elder Herbert, whose house stood on London Bridge.

120. A Plain Vertical Movement.

Presented by Messrs. G. & S. E. ATKINS.

HERON, ISAACK, New York.

121. Vertical Movement, No. 57, enamel dial, evidently English make.

Presented by B. L. VULLIAMY, 1816.

HIGGS and EVANS, London.

122. Vertical Movement, remarkable for the unique character of its pillars, No. 6314.

Presented by EDWARD STREETER, 1875.

HUBERT, ESTIENNE, à Rouen.

123. Old French Movement with catgut, pinion on fuzee arbor, no dial or motion.

124. A Small, Imperfect, Oval Movement, with catgut, hour wheel driven by lanthorn pinion (a fragment).

Presented by B. L. VULLIAMY, June, 1816.

HUBERT, JEAN, à Rouen.

125. METAL SINGLE-CASE WATCH, enamel dial, formerly part of a timepiece.

HUGGERFORD, IGNATIUS, Londini.

A Freeman of the Haberdashers' Company, admitted and sworn a Brother of this Company, July 3, 1671.

126. SILVER WATCH, with tortoiseshell outside case,

mounted and studded with silver, silver dial, with rotary day of the month circle.

This watch has a steel cock beautifully pierced; it is remarkable for having a jewel in the cock, and was produced before a Committee of the House of Commons, about 1704–5, to oppose the application for the grant of a Patent for jewelling watches and clocks. The opposition to the Patent was made at the expense of the Company, and was successful, as appears by a document in the handwriting of Edward Tutet, Master, dated 1785, and in possession of the Company.

Purchased by the Company of Henry Magson, for £2 10s., 15th January, 1804.

HUGHES, WILLIAM, London.

Apprenticed May 7, 1787.

127. Jewelled centre, seconds' movement, capped with enamel dial, square pillars, and beautifully engraved cock and name-piece, No. 4113.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

HUNTER, THOMAS, London.

128. Vertical Movement, enamel dial, in green skin case, gilt, No. 768.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

HUNTT, EDWARD.

129. A fragment of an Ancient Movement, with tulip pillars.

Presented by GEORGE PHILCOX, 1875.

JACKMAN, JOSEPH, London Bridge.

130. A large Vertical Movement.

JULLIOTT, SOL., London.

131. Vertical Movement, No. 413. Date on main-spring, 1738.

Presented by Messrs. F. B. ADAMS & SONS.

KENDALL, LARKHAM, London.

132. Silver Watch in pair of cases, B. & V., very

curious and elaborate Remontoir escapement, coiled up compensation curb.

Purchased at the late Larkham Kendall's sale, by the late Benjamin Vulliamy, for £30, and presented by his son, B. L. Vulliamy, 1849.

KNIBB, JOHN, att., Oxon.

133. Vertical Movement, with curiously wrought pillars, no dial.

Presented by F. PUTLEY, 1816.

LAINY, DAVID.

134. Vertical Movement, of an early period, remarkable for its very peculiar cut pillars and its mode of fixing in case, hour hand only.

Presented by EDWARD STREETER, 1875.

LE COUNT, DANIEL, London.

Made Free of the Company, 29 September, 1676.

135. VerticalMovement, No. 197, with tulip pillars, no dial.

LE NOIR, à Rennes.

136. A Metal Gilt Watch, with enamel dial, with raised spaces for the hours, one hand only, winds up by cannon pinion; the outer case engraved and gilt.

Presented by C. H. IVERSON, 1875.

LEPINE, Horloger du Roy.

137. A Silver Watch, with enamel dial, central seconds, lever escapement.

138. A Plain Vertical Movement, with enamel dial, No. 1612.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

LE ROY, JULIEN, Paris.

139. Vertical Movement, No. 2721, no dial, curiously pierced gold hands.

Presented by B. L. VULLIAMY, 1849.

140. Plain Vertical Movement, with enamel dial and diamond hands, No. 13958.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

LEROUX, J., Charing Cross, London.

141. GOLD WATCH, in pair of cases. Very complicated and highly-finished escapement.

Presented by Admiral LORD LYONS, 1859.

LESTOURGEN, DAVID, London.

David Lestourgen, Watchmaker, admitted a Free Brother, 4 April, 1698.

142. Gilt Movement, No. 1386, enamel dial. A very good specimen.

Presented by F. B. ADAMS, July, 1869.

LINDESAY, G., "Servant to His Majesty," Watchmaker to King George II.

143. Vertical Movement, jewelled, enamel dial, No. 627.

MARGETTS, GEORGE.

Admitted a Free Clockmaker, 11 October, 1779; and to the Livery of the Company, October 7, 1799.

144. A very large WATCH, in metal gilt case, with enamelled back, showing mean time and sidereal difference in hours, minutes, and seconds by three revolving enamel discs, horizontal escapement, No. 1098.

Presented by CHARLES FRODSHAM & Co., 1875.

MARKHAM, MARKWICK, London.

145. Vertical Movement, has a rolling verge, the cut of the balance-wheel reversed, 6826, with enamel dial.

Presented by B. L. VULLIAMY, 1816.

146. Vertical Movement, No. 6723. Chiefly remarkable for its elaborate and highly-finished pillars.

Presented by Messrs. F. B. ADAMS & SONS, 1848.

MARTINOT, M., à Avignon.

147. Thick French Metal Watch, very large balance, which, when in motion, has the appearance of a pendulum, curiously chased gilt and enamel dial, winds up through the centre, outer case black skin.

MASSEY, NICHOLAS, London.

Made Free of the Company, 1693.

148. Imperfect Vertical Movement, curious for having an index on the top of the cock.

MASTERSON, R^T.^, at the Exchange, fecit.

Made a Free Brother, 1683.

149. Oval Watch, in a silver hunting cockle-shell case, plain silver dial, hour hand only, catgut. A very curious specimen.

MISCELLANEOUS.

150. Photographs of Clock Watch.

These three photographs represent three different views of a Chronometer Clock Watch, made for W. A. Tyssen Amhurst, Esq., by W. Payne & Co., 163, New Bond Street, London. It strikes the hours and quarters like a clock, when set, will strike the hours after each quarter, when the repeating piece is used, it will, in addition to the hours and quarters, repeat the minutes; it marks on the dial plate the days of the month and the days of the week, and also shows the age of the moon. The seconds' hand is a double one, and, in taking observations, by pressing a pin at the side of the case, one hand stops while the other moves on, indicating the number of seconds elapsing between the two events.

Presented by Wm. WING, Master of the Company in 1873.

151. Ezekiel's Wheel.

Made by George Stockwell, of Sheerness, 1823.

"The appearance of the wheels and their work was like unto the colour of a beryl: and they four had one likeness: and their

appearance and their work was as it were a wheel in the middle of a wheel. When they went, they went upon their four sides: and they turned not when they went. As for their rings, they were so high that they were dreadful; and their rings were *full of eyes* round about them four."—EZEKIEL i. 16, 17, 18.

MOORE, PETER, London.

152. Plain Vertical Movement, with square pillars, No. 10459.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

MUDGE, THOMAS, London.

Apprenticed to George Graham May 4, 1730; admitted and sworn a Free Clockmaker, 15 January, 1738.

153. Very Curious and highly-finished Movement, with enamel dial, Remontoir escapement, having an early attempt at compensation applied to the curb. No. 260. Sold 22 August, 1755, and made for the King of Spain. It afterwards belonged to a Mr. Langdon.

Presented by J. Grant, 1850.

154. Full Plate, centre seconds (movement only), London, No. 260. Dial enamelled on gold.

This is a centre seconds Watch of a very complicated character, the seconds motion work being so arranged that it can be entirely detached from the escapement, which is a vertical one, with a solid verge. The balance is controlled by two flat spiral springs, one within the other, one only being acted upon by the index, the other being in connexion with a spiral compensation coil. There is in connexion with this movement a very elaborate amount of mechanism, the object of which is not immediately apparent, but is well worthy of the attention of the scientific enquirer.

Presented by J. GRANT, 1850.

155. A very elaborate piece of work as a bridge or balance cock, the hole for pivot being formed by four friction-rollers, with diamond end bearing. Regulator with micrometer screw, and other fine adjustments for curb-pins which apparently have acted upon a straight piece of the balance spring. Taken from a vertical remontoire time-piece by Thomas Mudge.

Presented by CHARLES FRODSHAM & Co., 1875.

MUDGE, THOMAS, AND DUTTON, WILLIAM.

156. GOLD DUPLEX REPEATER, with enamel dial, in a pair of cases, old standard, No. 1432. A fine specimen, in good preservation.

Presented by C. FRODSHAM, January 11, 1869.

M. Z.

157. SILVER-GILT OVAL WATCH, with silver band and dial, showing the moon's age, the days of the month, and the days of the week.

NELSON, JAMES, Londini.

Apprenticed to Oswald Durant, 9 April, 1638; made Free of the Company, 1645.

158. ASTRONOMICAL WATCH, in SILVER OVAL CASE, showing the hours, days, weeks, and months of the year, moon's age, sidereal time, equation, &c. Catgut, before the introduction of chains.

NERRY, JOHN, London.

159. Vertical Movement, with curiously chased pillars, no dial, No. 233.

Presented by EDWARD STREETER, 1875.

NORTHCOTE, SAMUEL, Plymouth.

160. Vertical Movement, jewelled, with enamel dial and square pillars, No. 599.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

ORDSON, WILLIAM, London.

161. A Vertical Movement, with square pillars and enamel dial, the hour circle represented by letters constituting the name "JAMES NEWMAN *," No. 8418.

Presented by EDWARD STREETER, 1875.

PATEY, WILLIAM.

162. Vertical Movement, with enamel dial, No. 204.

Presented by B. L. VULLIAMY.

PERIGAL, FRANCIS, Royal Exchange, London.

The son of Francis, of the Royal Exchange; apprenticed to his father July 6, 1778; admitted a Free Clockmaker January 9, 1786; made a Liveryman January 8, 1787; chosen on the Court of Assistants January, 1803; served the office of Warden 1833-5; Master 1806.

163. Plain Horizontal Movement, jewelled, capped, No. 17912.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

PINCHBECK, CHRISTOPHER, London.

(*See* Portraits.)

164. Small Repeating Movement, cap and bell, enamel dial, No. 56.

Presented by B. L. VULLIAMY, 1816.

PIKE, JOHN, London.

Served the office of Steward of the Company in 1838.

165. Vertical Movement only. No. 1998.

Presented by B. L. VULLIAMY.

QUARE AND HORSEMAN, London.

Daniel Quare, "a great clockmaker," admitted and sworn a Brother 3 April, 1671; chosen on the Court of Assistants, 1697; served the office of Warden, 1705–1707; chosen Master, 29 September, 1708. In 1676, he invented the repeating movement in watches, by which they were made to strike at pleasure.

166. Repeating Movement (Stockden motion), jewelled, no dial, No. 1117.

Presented by Messrs. F. B. ADAMS & SONS, 1850.

ROBINSON, FRANCIS, London.

Apprenticed to Thomas Williamson, 3 March, 1672; served the office of Warden in 1722-24; chosen Master in the room of Joseph Williamson, deceased, 7 June, 1725.

167. Repeating Movement, with enamel dial, No. 34, having a silver cap, upon which is engraved, "Servant to His Royal Highness."

Presented by B. L. VULLIAMY, 1849.

ROMILLY, à Paris.

168. Silver single case, No. 25382.

Presented by B. L. VULLIAMY, 1853.

REYNOLDS, T., St. Martin's-le-Grand.

169. A Vertical Watch, in metal case, covered with tortoiseshell, No. 7081, a fine specimen of this description of work.

Presented by Messrs. F. B. ADAMS & SONS, 1849.

170. Plain Vertical Movement, square pillars, wanting dial, No. 859.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

SENIN, P., à Paris.

171. Portable Silver Sun-dial Compass, engraved.

Presented by J. GRANT, 1853.

SKINNER, MATHEW.

Served the office of Steward in 1735; elected on the Court of Assistants, April 4, 1743; chosen Warden, 1744-5, and Master, 29 Sept., 1746.

172. Vertical Movement, silver cock.

Presented by Deputy S. E. ATKINS, Clerk to the Company, 1873.

SMITH, JOHN, London.

173. Jewelled Repeating Movement, enamelled dial, No. 8499. (In a very good state of preservation.)

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

SMITH, JOSEPH, Bristol.

174. Vertical Movement, silver cap and cock. No. 300.

Presented by B L. VULLIAMY.

SPENCER and PERKINS, London.

175. Pedometer, late the property of Her Majesty Queen Charlotte.

Presented by B. L. VULLIAMY, 1849.

SULLY, HENRICUS, invenit et fecit (1724), Horologer to the Duke of Orleans.

176. A Spring Clock, of novel construction, showing seconds and days of the month; the action of the balance being combined with an adjustable lever acting vertically thereon.

Fully described in his work, entitled, 'Description Abrégée d'une Horloge d'une Nouvelle Invention pour la Juste Mesure du Temps sur Mer, avec le Jugement de l'Académie Royale des Sciences sur cette Invention.' Published 1726.

Presented by JOHN THWAITES, Master, 1821.

SWAAN, PIETER, Amsterdam.

177. A plain Vertical Movement, with elaborate chased and engraved pillars, enamel dial. A very ancient specimen, No. 620.

Presented by EDWARD STREETER, 1875.

TAYLOR, THOMAS, London.

Made Free of the Company, 10 August, 1646.

178. Plain Vertical Movement, catgut, with beautifully pierced steel studs and cock.

Presented by B. L. VULLIAMY, 1816.

THOMAS, JOHN, London.

179. Vertical Movement, with enamel dial, square pillars, in silver pair of cases, No. 6029.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1875.

TOMLINSON, WILLIAM, London.

Served the office of Warden in 1730; chosen Master of the Company, 29 September, 1733.

180. Vertical Movement, enamel dial, No. 1427.

Presented by Messrs. F. B. ADAMS & SONS, 1848.

TOMPION, THOMAS, London, a celebrated Watchmaker.

Made Free, 4 September, 1671; elected on the Court of the Company, 7 September, 1691; served the office of Warden, 1700-1703; chosen Master, 29 September, 1704; died, 13 November, 1713, age 75; buried in Westminster Abbey. Tompion made a watch with a spiral balance, or pendulum spring, for King Charles II. One end of the spring was made fast to the arbor of the balance wheel, whilst the other was secured to the plate, and the oscillations were rendered equal and regular by its elastic force. He also invented the cylinder escapement, with horizontal wheel, in 1695.

181. Thick Verge Movement, with enamel dial, No. 2920.

182. Plain Verge Movement, no dial, No. 0598.

Presented by B. L. VULLIAMY, 1849.

183. Plain Vertical Movement, no dial, No. 2268.

Presented by EDWARD STREETER, 1875.

TOMPION, T., and BANGER, E., London.

Apprenticed to Charles Kempe, 2 April, 1694; made Free of the Company, 7 December, 1702. Banger Apprenticed to Joseph Ashby for Thomas Tompion, 27 September, 1687; made Free of the Company, 1694.

184. Repeating Clock Movement, with bell, No. 191. A curious specimen.

TORADO, FRANCIS, Gray's Inn.

Made Free of the Company, 1 April, 1633. His widow became a Pensioner in 1690.

185. Silver Oval Hunting Watch, silver dial, hour hand only, catgut, no pendant, with raised pins at each hour for feeling the time at night. Called a "Touch Watch."

Presented by WM. PLUMLEY, Jun., 1817.

TOULMIN, SAMUEL, Strand, London.

186. Centre Seconds, Horizontal Movement, jewelled, No. 3361, enamel dial. There is a wheel on the

cylinder which communicates with a pinion, fixed on the balance, which is under the dial, the escape wheel and cylinder being under the cock, beats full seconds. A very curious specimen.

Presented by B. L. VULLIAMY, 1830.

WATTS, BROUNKER, London.

Apprenticed to Joseph Knibb, 19 January, 1684; made Free of the Company, 5 February, 1693.

187. An Old Bell Repeating Watch, with a highly-finished coloured gold dial; has a peculiar engraved and gilt cap. The case pierced and beautifully engraved, and in good preservation (outer case wanting).

Presented by B. L. VULLIAMY, 1816.

WEBSTER, ROBERT, London.

188. Silver Bell Repeater, with silver dial, open engraved case, with crest a lion rampant crowned.

Purchased by the Company, 1852.

WINDMILLS, THOMAS, London.

Apprenticed to Joseph Windmills, 17 January, 1686; made Free of the Company, 20 January, 1695; chosen on the Court of Assistants, 6 July, 1713; served the office of Warden, 1717; chosen Master, 1719.

189. Repeating Movement; has an engraved and gilt rim.

Presented by Messrs. F. B. ADAMS & SONS, 1848.

190. Vertical Movement, enamel dial, No. 8736.

Presented by F. PUTLEY, 1817.

WOLVERSTONE, BENJAMIN, Londini.

Apprenticed to R. Richards, 26 May, 1649; made Free of the Company, 24 March, 1657.

191. Curious Alarm Watch, silver dial, hour-hand only, box curiously pierced and engraved, case handsomely studded.

WRIGG, JOHANNES, in Covent Garden.

One of this name made Free of the Company, 4th Nov., 1661.

192. A Fragment.

YEATMAN, ANDREW.

193. Silver Verge Watch.

Presented by JOSEPH FENN, 1862.

PAINTINGS, PORTRAITS, &c.

PAINTINGS.

GRAY, BENJAMIN.

VULLIAMY, BENJAMIN.

Admitted to the Honorary Freedom of the Clockmakers' Company 2 April, 1781.

VULLIAMY, FRANCIS JUSTIN.

A TABLE with ARTICLES of VERTU, BOOKS, MANUSCRIPTS, a WATCH, &c., upon it.

These were Bequeathed to the Company by BENJAMIN LEWIS VULLIAMY, Esq., in 1854.

MUDGE, THOMAS.

Original Portrait by Nathaniel Dance.

WAX PORTRAITS.

ATKINS, GEORGE.

The son of Francis Atkins. Born in Clement's Lane, Lombard Street, 1767; apprenticed to John Waldron, citizen and cordwainer; made Free of the Company September 1, 1788; admitted to the Livery October 13, 1788; chosen on the Court of Assistants

April 4, 1808; succeeded his father as Clerk of the Company December 22, 1809; resigned that office, after thirty-two years' service, upon being chosen on the Court of Assistants, October 11, 1841; the thanks of the Court presented to him for his long and faithful services January 10, 1842; chosen Warden 1844, and Master, upon the decease of Mr. R. P. Ganthony, January 24, 1845; again elected Master September 29, 1845; requested to sit for his portrait to Mr. Lucas January 12, 1852; died in 1855, aged 88, Father of the Company.

VULLIAMY, BENJAMIN LEWIS.

Made a Free Clockmaker by purchase December 4, 1809; admitted on the Livery January 8, 1810; chosen on the Court of Assistants 1810; served the office of Warden 1846-47; Master 1821, 1823, 1825, 1827, and 1848. A piece of plate presented to him, for the eminent services he had rendered to the Company during a long period of years, and on the occasion of his having served the office of Master for the fifth time, April 2, 1849; died 1853.

Presented to the Company by Mr. LUCAS, in July, 1851.

ENGRAVED PORTRAITS, &c.

ARNOLD, JOHN.

R. Davy, pinx. J. E. Reid, sculp.

An ingenious mechanician. Was born at Bodmin, Cornwall, in 1744; he carried on business in Cornhill, introduced several important improvements in the construction of Marine Chronometers, adopted the Cylindrical Balance-spring in 1776, was one of the competitors for the reward offered by the Board of Longitude under 12 Anne, c. 15, s. 2, 1713, which promised £10,000, upon certain conditions, to those who should submit the best instrument for determining the Longitude. Although he did not gain the prize, the Board awarded him £3,000 for the improvements he had made in Chronometers. He wrote several pamphlets upon his inventions; died 25 August, 1799, and was buried at Chiselhurst.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1874.

ATKINS, SAMUEL ELLIOTT.

A Photograph.

Son of George Atkins. Born in Clement's Lane, Lombard Street, April 13, 1807; apprenticed to his father May 7, 1821;

admitted to the Freedom by patrimony March 7, 1831, and to the Livery December 2, 1839; succeeded his father as Clerk to the Company January 10, 1842; upon the completion of the thirty-second year of his clerkship, he received the unanimous thanks of the Court of Assistants, which was inscribed on a presentation of plate, made to him in July, 1874; elected Member of the Court of Common Council for Cornhill, and appointed Deputy of the Ward, 1865.

BRÉGUET, ABRAHAM LOUIS.

A. Chazal, pinx. Langlume, lith.

Born at Neufchâtel January 10, 1747, his father being one of the French refugees; he was apprenticed in Paris, and subsequently became one of the greatest mechanical geniuses of his country. He was patronized by the Duke of Wellington, the Emperor of Russia, and the other Allies, in 1815. He made a chronometer for George IV. which had two pendulums; and for the blind he invented "*Une Montre de Touche,*" on which the hours were indicated by projecting pins round the rim of the case, while the pendant marked twelve o'clock. Died 17 September, 1823.

Presented by C. FRODSHAM, 1861.

CUMMING, ALEXANDER, F.R.S., Edinburgh.

S. Drummond, A.R.A., pinx. Henry Meyer, sculp.

An ingenious Scotch mathematician, born at Edinburgh. He made a Clock for George III.; it registered the height of the barometer during every day throughout the year, and cost nearly £2,000: he was allowed £200 a year to attend to it. He wrote several essays on Clock and Watchwork, &c., in 1766. Made an honorary Freeman of the Company July 2, 1781.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1874.

EARNSHAW, THOMAS.

Sir Martin Archer Shee, R.A., pinx. Samuel Bellin, sculp.

There is a curious transit clock at the Greenwich Observatory made by Graham, but greatly improved and simplified by Earnshaw. He was the inventor of the Cylindrical Balance Spring; he succeeded in making Timekeepers so simple and cheap, that they were within the reach of private individuals; he was one of the unsuccessful competitors for the Longitude Reward, but the Commissioners granted him £3,000 for the improvements he had made in Chronometers.

Presented by CHARLES FRODSHAM & CO., 1874.

ELLICOTT, JOHN, F.R.S. Ætat. 67, Clockmaker to His Majesty.

Nathaniel Dance, pinx. Robert Dunkarton, sculp.

Apprenticed to John Waters, September 5, 1687; made Free of the Company, July 6, 1696. Chosen on the Court of Assistants of the Company, 19 October, 1726; served the office of Warden from 1730-33. He was a mathematician of considerable ability, and read several papers before the Royal Society in 1752 upon the influence of heat and cold upon the rod of the pendulum. Died 1772.

Presented by his Son, EDWARD ELLICOTT, 1821.

FRODSHAM, WILLIAM JAMES, F.R.S.

Lithographed by Miss Ada Cole.

Admitted a Free Clockmaker, October 11, 1802; and to the Livery of the Company, 7th October, 1811; chosen on the Court of Assistants, January 12, 1824; served the office of Warden, 1833–35; and twice elected Master, 1836-1837. He published several works, among them the results of experiments on the vibration of pendulums in 1838. He was a liberal benefactor to the Company, a pension for decayed Clockmakers being called after his name.

Presented by CHARLES FRODSHAM, June 29, 1858.

GRAHAM, GEORGE, Clockmaker.

T. Hudson, pinx. J. Faber, sculp.

Born at Rigg, Cumberland, in 1673. Apprenticed to Henry Aske, 2 July, 1688; made Free of the Company, 2 July, 1715; elected on the Court of Assistants, 2 April, 1716; chosen Warden, 1719-21, and Master, 29 September, 1722; elected Fellow of the Royal Society, March 9, 1720. He was the greatest Horologist of his day. Invented the Horizontal Escapement in 1724. Died November, 1751, aged 75, and was buried in Westminster Abbey by the side of his friend Tompion. He left £20 for the poor of the Company.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1874.

HARRISON, JOHN.

T. King, pinx. P. L. Tassaert, sculp., 1768.

Born in 1693 at Foulby, near Pontefract, Yorkshire, his father being a carpenter, to which trade he brought up his son, who added to his income by occasionally assisting in surveying land and

repairing clocks and watches; in 1700 he removed with his parents to Barrow, in Lincolnshire, spending much of his time in improving the working parts of watches. In 1714, the Government having offered a reward for a method of determining the longitude at sea, he presented himself before the Board of Longitude with an instrument which, after it had been submitted to Halley and others, was tried with partial success; he was the inventor of the Compound Pendulum, and of several Timekeepers for ascertaining the Longitude at Sea, the last of which, on a voyage to and from Jamaica in 1761-2, ordered by the Commissioners of Longitude, was certified to have succeeded considerably within the limits prescribed by Act of Parliament of the 12th year of Queen Anne, and in 1765 he received the reward of £20,000. He published in 1775 a descriptive account of such mechanism as would afford a nice or true mensuration of time. He was also the inventor of the Gridiron Pendulum, and of the method of preventing the effect of heat and cold upon Timekeepers by two bars of different metals fixed together. He died at his house in Red Lion Square, Holborn, 24 March, 1776, and was buried in Hampstead Churchyard.

JANVIER, ANTIDE, Horloger ordinaire du Roi, dédié à son ami Wagner.

He was born at the little village of Jura in 1751; his father was a labouring mechanic. In 1769, at the age of eighteen, he had constructed several astronomical instruments; in 1784 Louis XVI. appointed him Royal Horologer; was the author of several astronomical works of great merit; died 23 September, 1835.

Presented by C. FRODSHAM & CO., 1874.

JEEJEEBHOY, Sir JAMSETJEE, Bart.

A Photograph.

Born in Bombay October 9, 1811, son of Sir Jamsetjee Jeejeebhoy, Bart., who was knighted by Her Majesty Victoria March 2, 1842; advanced to the dignity of a Baronet of the United Kingdom August 6, 1857; a great benefactor to his country; elected to the Honorary Freedom and Livery April 2, 1855; a liberal contributor to the Company's charities, a pension being called after his name. He died April 14, 1859, and was succeeded by his eldest son, the present Baronet.

KENNEDY, R. HARTLEY, M.D., F.R.A.S., Alderman.

Lithographed by Vinter.

Admitted to the Freedom and Livery of the Clockmakers' Company, April 26, 1851; chosen on the Court of Assistants, 1853;

elected Alderman of Cheap Ward, 1854; chosen Sheriff of London and Middlesex, June, 1855; resigned his aldermanic gown, March 30, 1858.

Presented by Mr. TEGG, 1856.

MUDGE, THOMAS.

Dance, pinx. Charles Townley, sculp., 1772.

Born at Exeter about 1710, his father being a schoolmaster at Bideford; he apprenticed his son to George Graham, the then most famous of Watchmakers, May 4, 1730. Whilst in his apprenticeship he became known as one of the best authorities upon Timekeepers. He succeeded to his master's business, carried on at the "Dial and One Crown," opposite the Bolt and Tun, Fleet Street. Admitted a Free Clockmaker January 15, 1738. He was employed by Ferdinand VI. of Spain to make several Timekeepers. In 1771 he retired from active business, and turned his attention to chronometers, and in 1789 he, with several others, competed for the reward offered by the Board of Longitude for the most accurate Timekeeper for determining the longitude, but was unsuccessful; however, in 1793 a Select Committee of the House of Commons, assisted by several men of science, reported that Mr. Mudge was one of the first Watchmakers this country had produced, and recommended the Parliament to give him a reward of £3,000 for his improvements in the construction of Chronometers. He died in 1794.

Presented by Deputy S. E. ATKINS, Clerk of the Company, January, 1874.

PINCHBECK [CHRISTOPHER].

Isaac Whood, pinx. J. Faber, sculp.

He lived at the sign of the "Astronomico-Musical Clock," Fleet Street, was the inventor of the metallic composition (imitation gold) bearing his name. He died November 18, 1732, and was buried in St. Dunstan's Church.

Presented by CHARLES FRODSHAM & CO., 1875.

REID, THOMAS.

Thomas Lawrence, pinx. Charles Thomson, sculp.

Of Edinburgh. Presented with the Honorary Freedom of the Company, October 10, 1825. He wrote a treatise on Clock and Watch Making in 1826.

Presented by CHARLES FRODSHAM & CO., 1874.

ROY, JULIEN LE, Horloger du Roi, ancien Directeur de la Société des Arta, né à Tours le 8 Août, 1686, mort à Paris le 20 Sep^bre^ 1759.

Perroneau, pinx. Moitte, sculp.

He showed at a very early age great mechanical genius, and in 1720 presented to the Academy of Sciences of Paris "une pendule d'équation," having a fixed dial which marked the correct time, and the rising and setting of the sun, upon which the highest encomiums were passed by the *savants* of both nations; and in 1739 Louis XV. appointed him Horloger du Roi. He made several improvements in Timekeepers for use on board ship; and in 1768 he went on a voyage to test his Timekeeper, and subsequently published several works upon the subject.

Presented by CHARLES FRODSHAM & CO., 1874.

TOMPION, THOMAS, Automatopæus.

G. Kneller, pinx. I. Smith, sculp.

He was made Free of the Clockmakers' Company, September 4, 1671; elected on the Court of Assistants September 7, 1691; served the office of Warden 1700-1703; chosen Master September 29, 1704. He was elected a Fellow of the Royal Society, resided at No. 67, Fleet Street, at the corner of Whitefriars Street, succeeded in his business by George Graham. Died 20 November, 1713, and was buried in Westminster Abbey.

Presented by Deputy S. E. ATKINS, Clerk of the Company, 1874.

WILLIS, FRANCIS, Gretford, Lincolnshire. Well known for his great range of knowledge in Mechanics.

Henry Sass, pinx. Wm. Ward, sculp., 1813.

Presented by CHARLES FRODSHAM & CO., 1874.

MISCELLANEOUS.

The original Grant of Arms, signed by Edward Walker, Garter King-at-Arms, January 30, 167$\frac{1}{2}$.

Three china bowls, having the arms of the Company and the donor upon the sides. (Lowestoft manufacture.)

A curious money-box (in iron).

LONDON: PRINTED BY E. J. FRANCIS & CO.
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